FIG.1

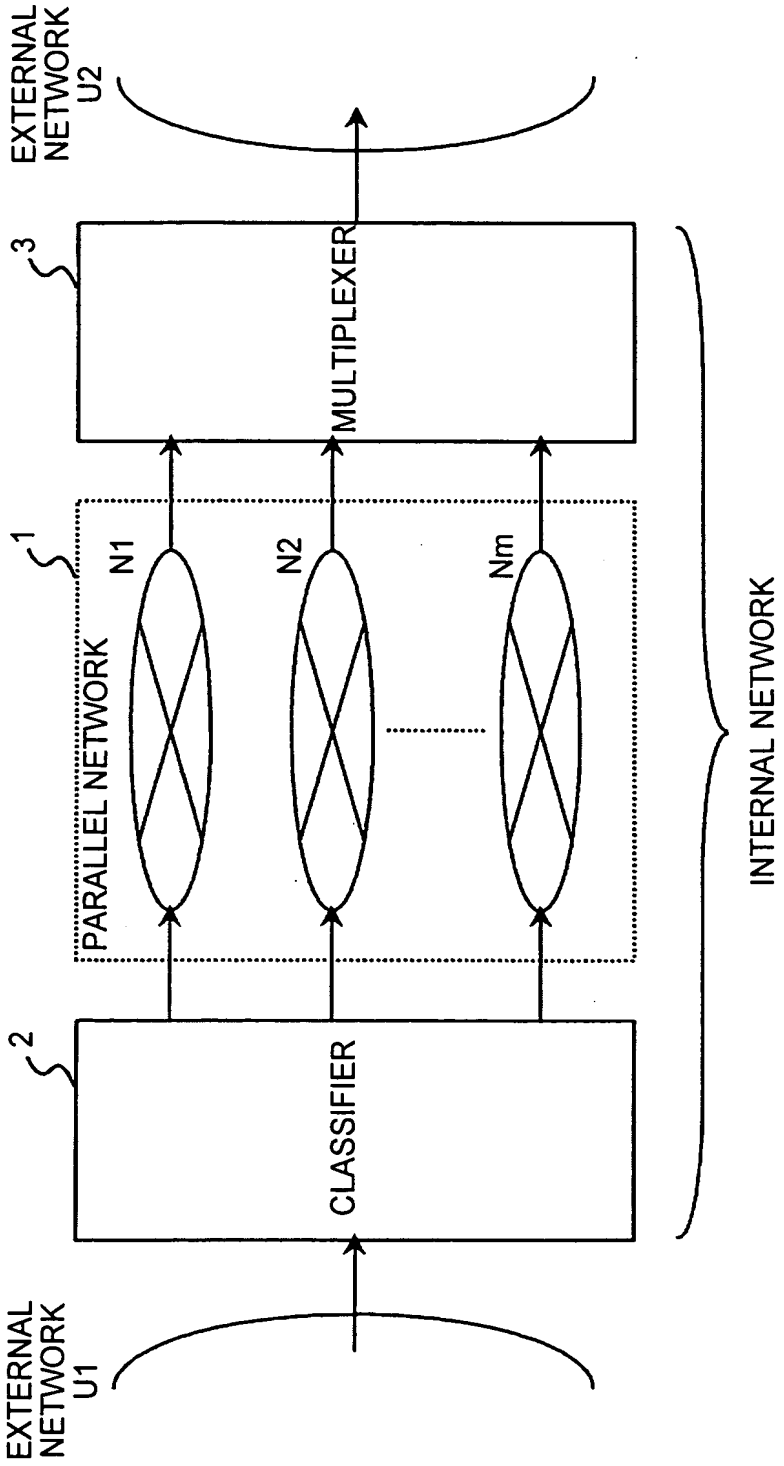

EXTERNAL NETWORK U2
3
MULTIPLEXER
1
PARALLEL NETWORK
N1
N2
Nm
2
CLASSIFIER
EXTERNAL NETWORK U1
INTERNAL NETWORK

FIG.2

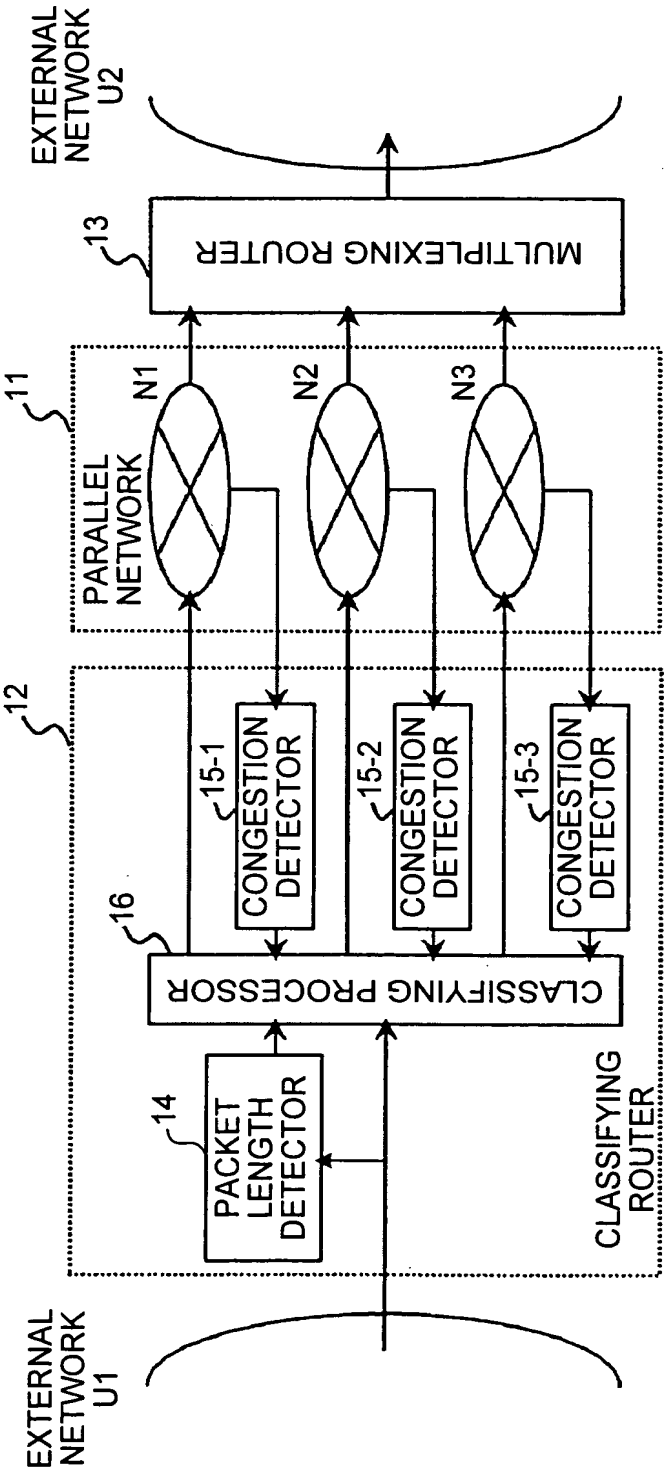

EXTERNAL NETWORK U2
13
MULTIPLEXING ROUTER
11
PARALLEL NETWORK
N1
N2
N3
12
15-1
CONGESTION DETECTOR
15-2
CONGESTION DETECTOR
15-3
CONGESTION DETECTOR
16
CLASSIFYING PROCESSOR
14
PACKET LENGTH DETECTOR
CLASSIFYING ROUTER
EXTERNAL NETWORK U1

FIG.3

PACKET LENGTH	DEFAULT CLASSIFICATION DESTINATION	CLASSIFICATION DESTINATION DURING CONGESTION
200 BYTES	N1	N3
128 BYTES OR LESS	N2	N3
OTHERS	N3	N3

FIG.4

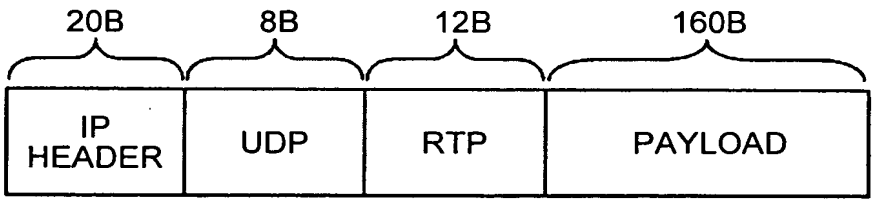


FIG.5

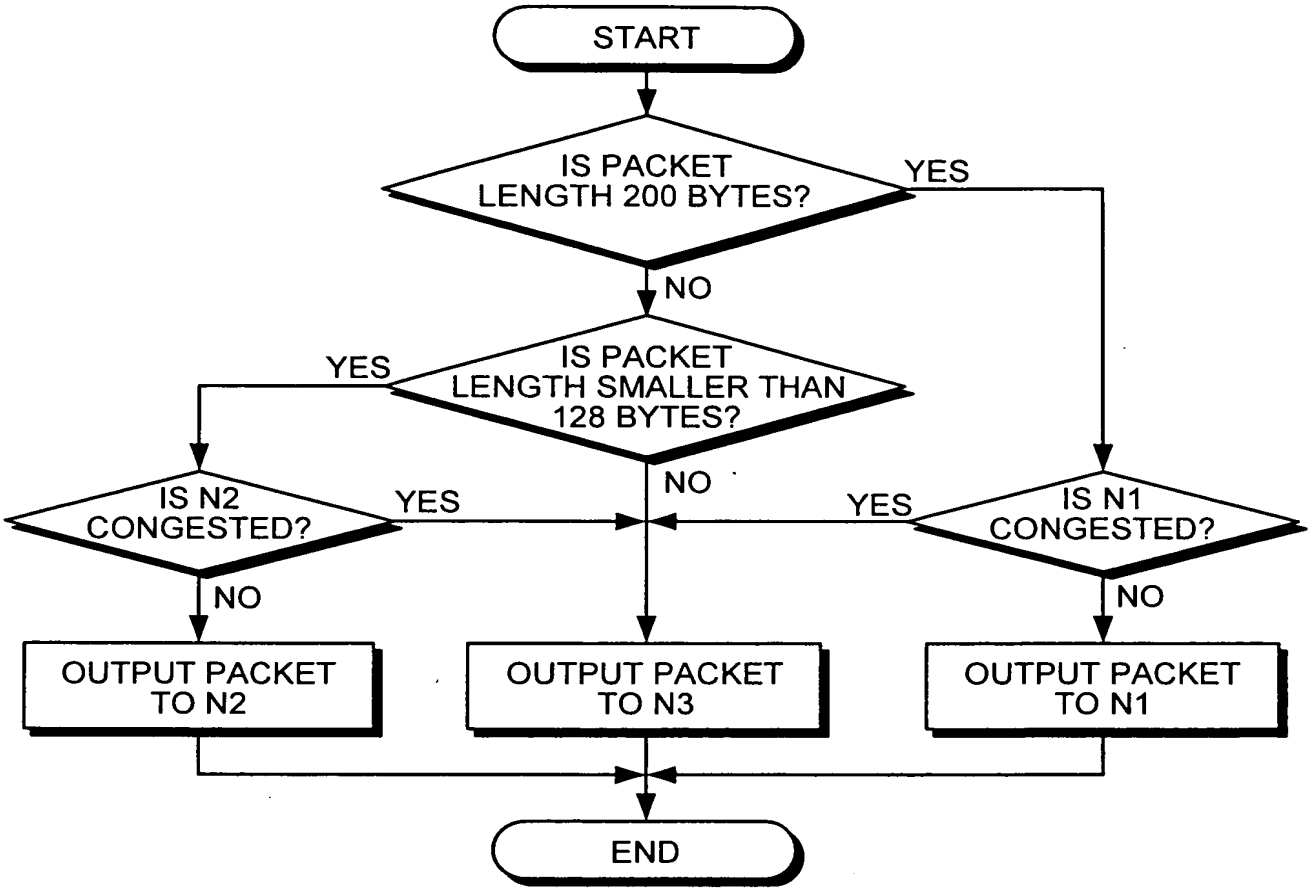

START
IS PACKET LENGTH 200 BYTES?
YES
NO
IS PACKET LENGTH SMALLER THAN 128 BYTES?
YES
NO
IS N2 CONGESTED?
YES
NO
YES
IS N1 CONGESTED?
NO
OUTPUT PACKET TO N2
OUTPUT PACKET TO N3
OUTPUT PACKET TO N1
END

FIG.6

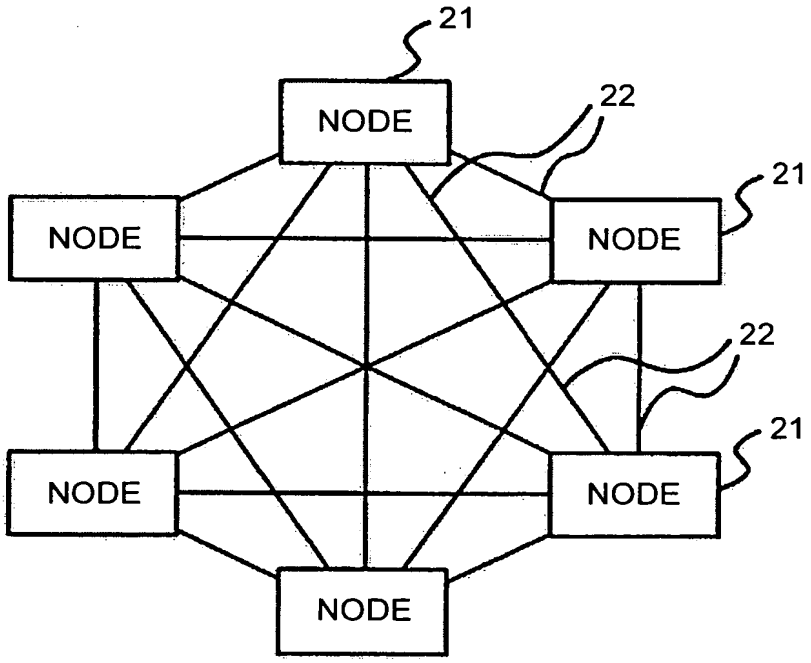


FIG.7C

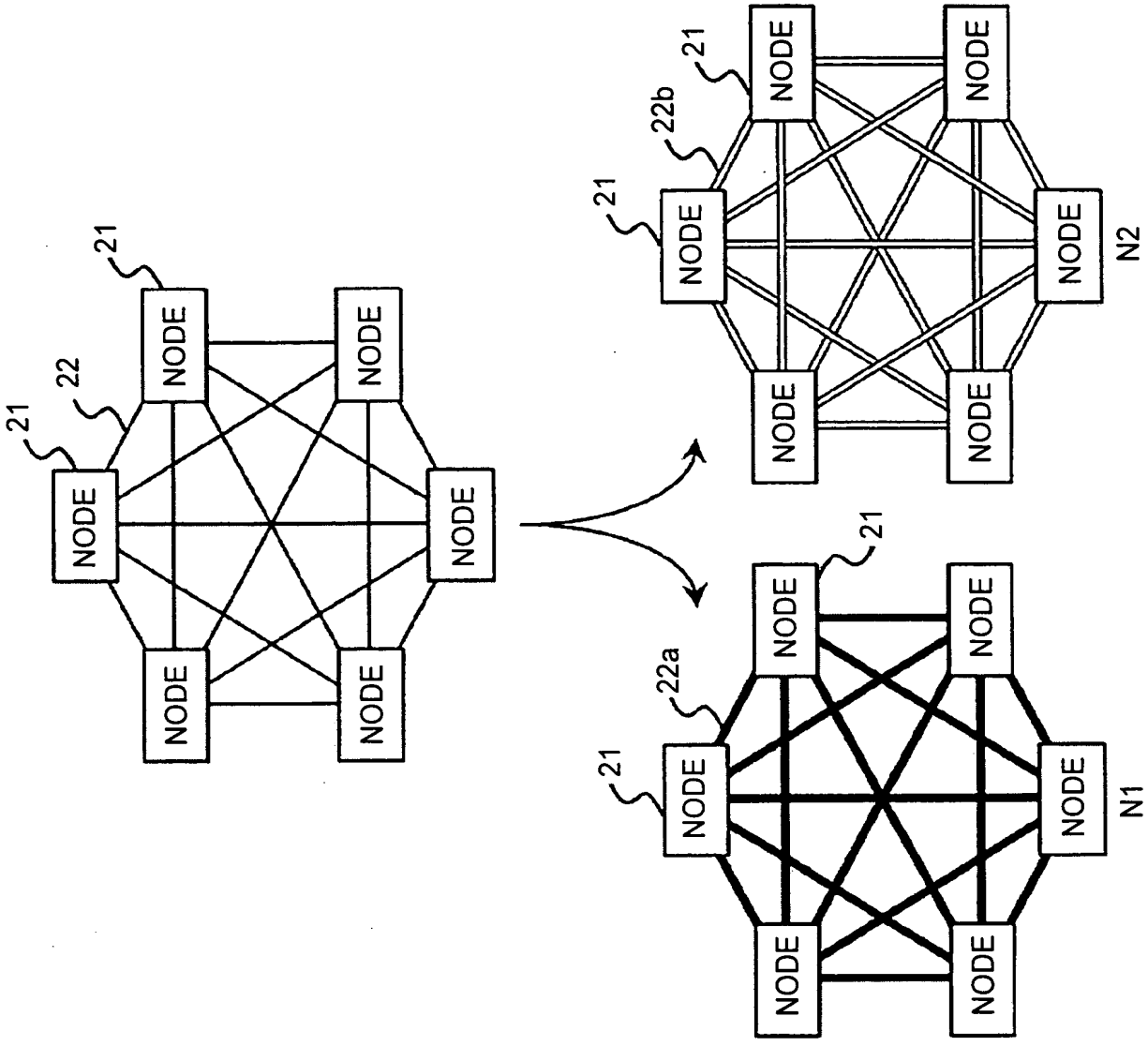


FIG.7A

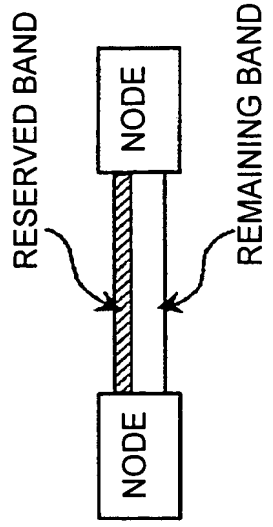


FIG.7B

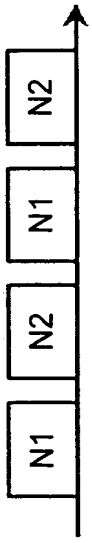


FIG.8

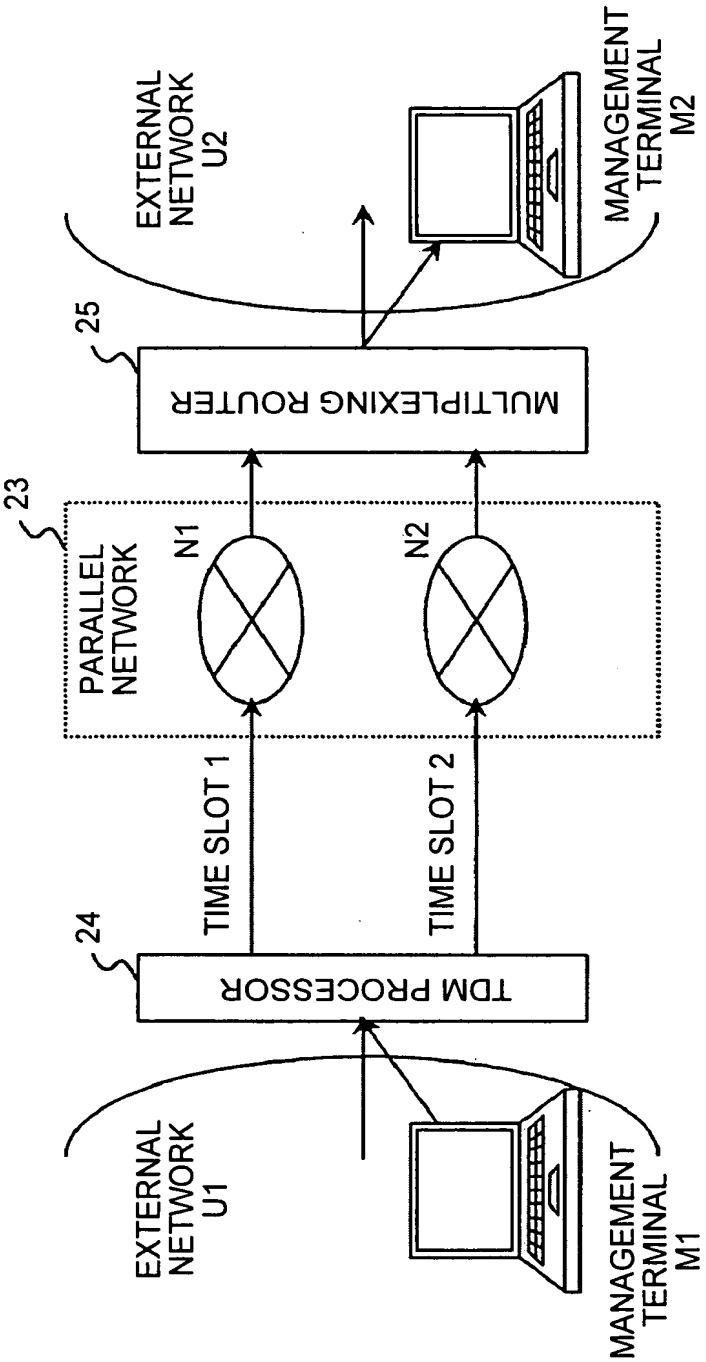

EXTERNAL NETWORK U2
MANAGEMENT TERMINAL M2
25
MULTIPLEXING ROUTER
23
PARALLEL NETWORK
N1
N2
TIME SLOT 1
TIME SLOT 2
24
TDM PROCESSOR
EXTERNAL NETWORK U1
MANAGEMENT TERMINAL M1

FIG.9

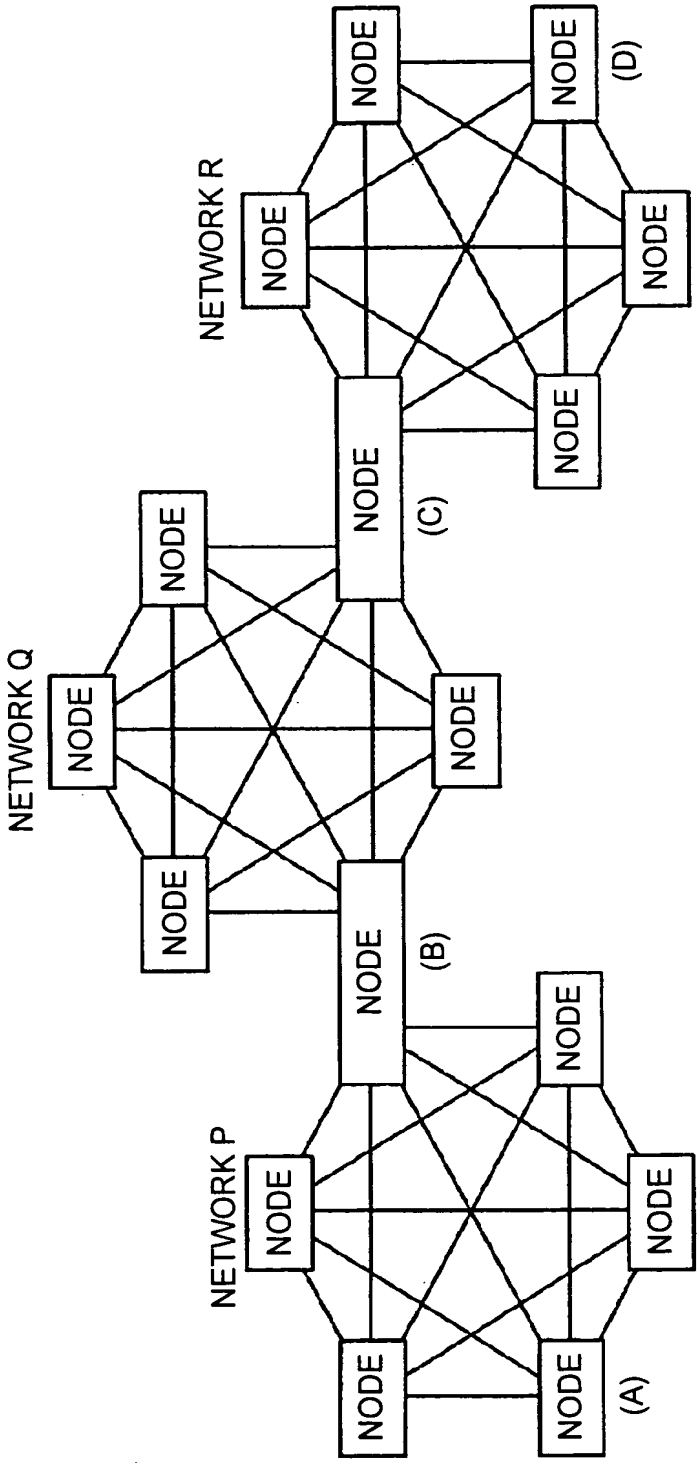


FIG.10

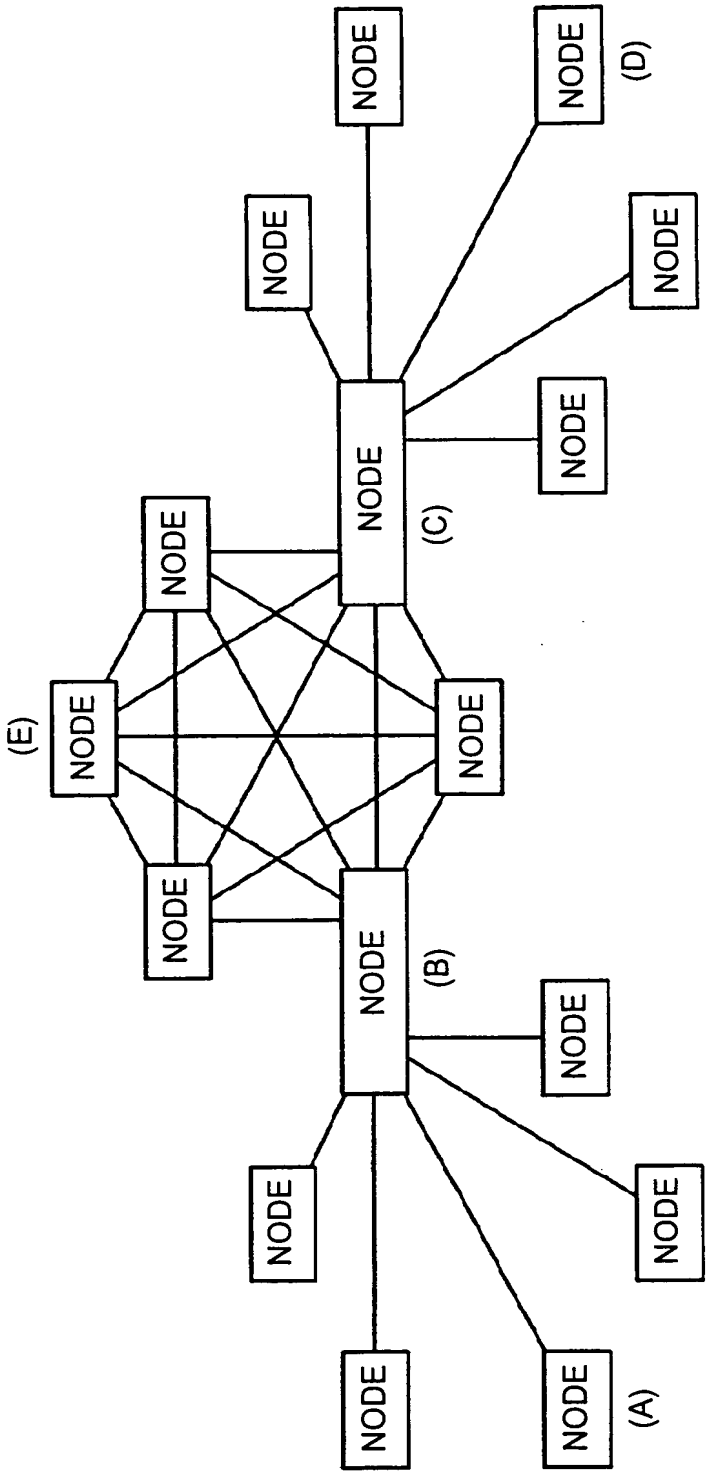

NODE
NODE
(D)
NODE
NODE
NODE
NODE
(C)
NODE
NODE
NODE
(E)
NODE
NODE
NODE
(B)
NODE
NODE
NODE
NODE
NODE
(A)

FIG.11

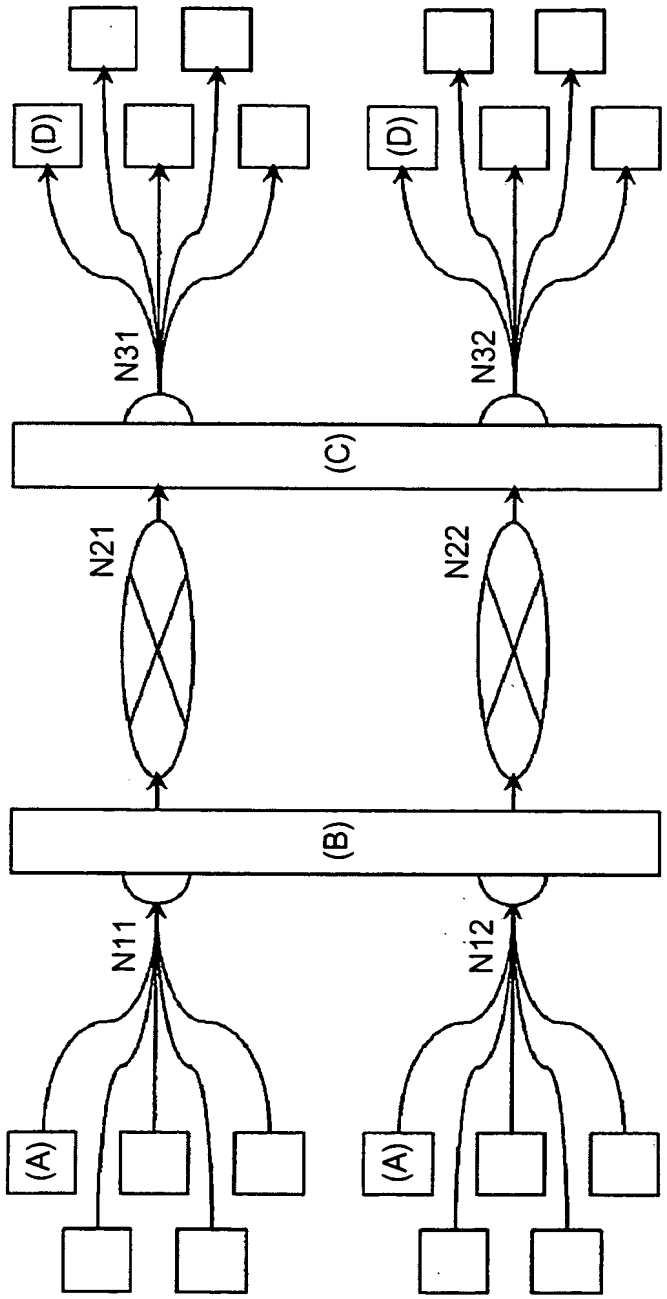
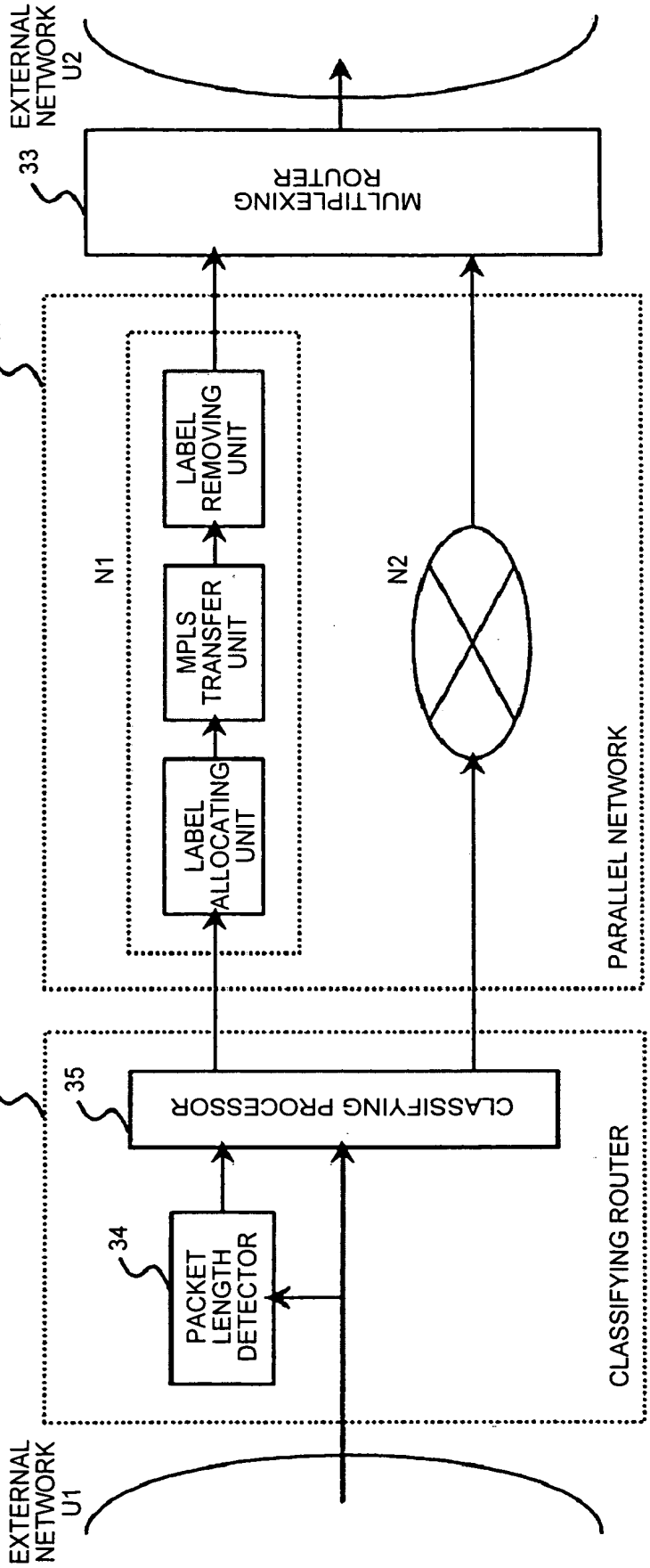


FIG.12


EXTERNAL NETWORK U2
33
MULTIPLEXING ROUTER
31
N1
LABEL REMOVING UNIT
MPLS TRANSFER UNIT
LABEL ALLOCATING UNIT
N2
PARALLEL NETWORK
32
35
CLASSIFYING PROCESSOR
34
PACKET LENGTH DETECTOR
CLASSIFYING ROUTER
EXTERNAL NETWORK U1